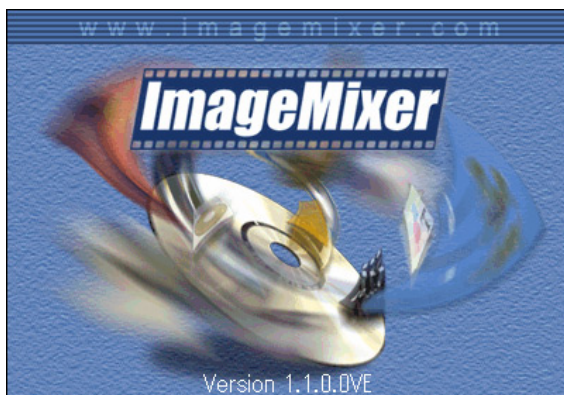


JVC

Digital Photo Navigator ImageMixer with VCD

ENGLISH



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CAUTION:

- Operate this equipment according to the operating procedures described in this manual.
- Use only the provided CD-ROM. Never use any other CD-ROM to run this software.
- Do not attempt to modify this software.
- Changes or modifications not approved by JVC could void user's authority to operate the equipment.

ATTENTION:**When connecting a USB cable or a DV cable to PC ...**

- Never switch the VIDEO/MEMORY (DSC) mode on the camcorder when the USB cable is connected. It may cause the camcorder not to be recognized by the PC. If it occurs, confirm that the PC is not accessing the camcorder, then disconnect the USB cable and connect it again.
- Never turn on or off the camcorder when the USB or DV cable is connected. It may cause malfunctions of the PC.

How to handle a CD-ROM

- Take care not to soil or scratch the mirror surface (opposite to the printed surface). Do not write anything or put a sticker on either the front or back surface. If the CD-ROM gets dirty, gently wipe it with a soft cloth outward from the center hole using a circular motion.
 - Do not use conventional disc cleaners or cleaning spray.
 - Do not bend the CD-ROM or touch its mirror surface.
 - Do not store your CD-ROM in a dusty, hot or humid environment. Keep it away from direct sunlight.
- **You can find the latest information (in English) on the provided software program at our world wide web server at <http://www.jvc-victor.co.jp/english/index-e.html>**
- Microsoft® and Windows® are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
 - Macintosh is a registered trademark of Apple Computer, Inc.
 - Other product and company names included in this instruction manual are trademarks and/or registered trademarks of their respective holders.

Reading this document

This document consists of the following three sections and an Appendix. Before use, please read the Software Installation and USB Connection Guide for preparation.

■ Loading Still Images (Windows®)

This section explains how to load still images into the album of the Digital Photo Navigator software.

■ Playing Back and Handling Images (Windows®)

This section explains how to handle still images using the Digital Photo Navigator software. You can send still images by e-mail and store an album as a web page.

■ ImageMixer with VCD (Windows® and Macintosh)

This section introduces the ImageMixer software. In addition to capturing still images and creating albums, ImageMixer is used for a variety of other functions, including color and brightness adjustment, and capturing videos through a USB cable or a DV cable. ImageMixer is also used to edit your captured video and then create a Video CD.* For details, refer to the ImageMixer online help.

* To create a Video CD, a CD-R drive is necessary. If you are using a Windows® PC, refer to the following web site for a drive that is compatible with Windows®:

<http://www.imagemixer.com>

If you are using a Macintosh PC, the application Toast™ by Roxio, Inc. is also necessary.

■ Appendix

This appendix explains how to use a camcorder to hold a video conference over the Internet and how to load images into the PC that does not have a USB connector. This appendix also contains troubleshooting and index.

Meanings of symbols

The following symbols are used in this document.

NOTE:

Indicates problems that could occur while using these softwares, phenomena that may appear to be a problem, limitations on the use of these softwares, or other information that is useful to know.



Indicates pages where related information can be found.

CONTINUED ON NEXT PAGE

Indicates that the explanation continues on the next page.

Copyrights

Under copyright law, any material that you may edit with this software cannot be used for any purpose other than your own personal enjoyment without the permission of the copyright holder. Note that this restriction applies when dubbing tracks from a CD as background music for your own movies.

Digital Photo Navigator

Send your favorite videos and pictures by e-mail

Everyone has video cassettes and memory cards containing videos and pictures that they never get to show to anyone.

No matter how wonderful, the only people that got to see them were families and guests, because there was no convenient way to show them except in your own home on the TV. Friends and relatives who live far away had no way of viewing them. And you don't want to throw those video cassettes and memory cards away because they hold treasured memories.

Now you can solve all of these problems with a PC. By using a USB cable to connect a camcorder to a PC, you can copy video clips from the camcorder to the PC. You can then send the files to anyone as an e-mail attachment.

Can I do this with my PC?

Yes, as long as your PC has a USB connector.

Aren't most video data files too large to send easily as e-mail attachments?

In the case of video, using the camcorder function to copy the video to a memory card will result in a smaller file. In the case of still images, you can use this software to reduce the file sizes.

Create a virtual album

If you have a lot of image files with similar names, it can be hard to remember which file contains which image.

You can use this software to display these images on your PC just as if you had pasted them in a photo album. Because you can scan through these images just as if you were flipping through a photo album, you can quickly find a specific image that you want to send through e-mail, for example.

Can I distribute copies of albums?

You can save albums in web page format. When the album is saved in this format, anyone with a browser can view the album on any type of PC. Because the album is already in web page format, you can also exhibit your photos on the Internet.

Under copyright law, it is illegal to distribute copyrighted images without the permission of the copyright holder. Make sure that you have permission to distribute such images before actually doing so.

ImageMixer with VCD

Edit your own movies

Edit your own original movies by processing and re-arranging video clips and still images that you have loaded into your PC. Now you can be the director! Just shoot video with your camcorder and then edit it on your PC.

Once you have finished your movie, you can play back it on your PC, send it through e-mail, or even show it on the Internet.

Create a Video CD

After you load and edit video clips on your PC, you are ready to create a Video CD* (see pg. 37). Since up to 64 minutes of video can be recorded to a 650MB CD, you can easily use a Video CD to send files too large for e-mail attachment.

Video CDs can also be played back on most DVD players, so they are useful when you want to send video to someone who does not own a PC.

* To create a Video CD, a CD-R drive is necessary. If you are using a Windows® PC, refer to the following web site for a drive that is compatible with Windows®:

<http://www.imagemixer.com>

If you are using a Macintosh PC, the application Toast™ by Roxio, Inc. is also necessary.

Add a camera to your PC

You can transform your camcorder into a peripheral for your PC.

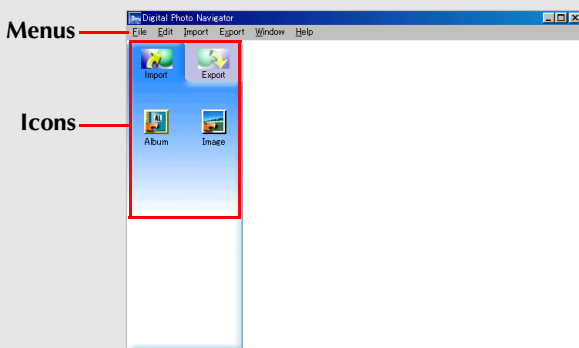
For example, when you are shooting a video, you can record on your PC instead of on a cassette. You can also use Windows® NetMeeting, Windows® Messenger (Windows® XP only) (or similar software) in combination with this software to hold a video conference over the Internet. (In order to conduct a video conference over the Internet with Windows® NetMeeting or Windows® Messenger, you must register with MSN Messenger and Microsoft HotMail.)

Loading Still Images (Windows®)

The Digital Photo Navigator software allows you to store and view still images in a photo album format.

The icons on the Digital Photo Navigator window have the same functions as the menus. In this section, almost all the procedures are explained using the icons.

Read this section if you are using a Windows® operating system.

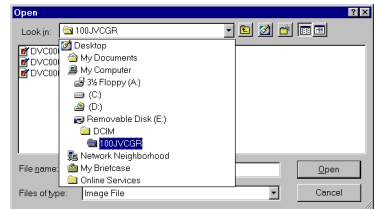
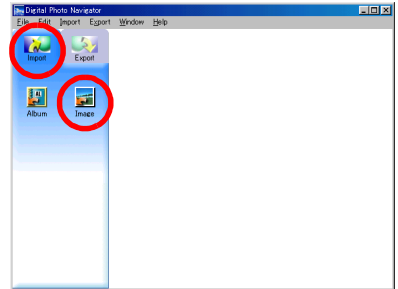
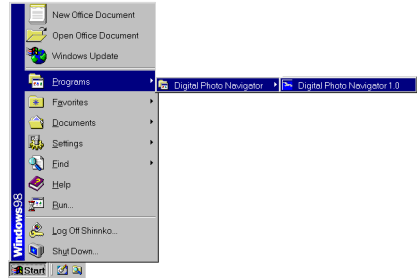


You can use Digital Photo Navigator to create an album that contains a collection of still images.

- 1** Select [Start] – [Programs] – [Digital Photo Navigator] – [Digital Photo Navigator 1.0].
 - Close any other programs running on the PC.
 - Disable any programs that run in the background, such as screen savers, e-mail applications, virus checkers, schedulers, etc.
 - Turn off file and printer sharing.
- 2** Click [Import].
- 3** Click [Image].

The [Open] dialog box appears.
- 4** Open the folder that contains the desired still images.
 - Select the folder of the still images copied to the PC and click [Open].
 - When loading images from a memory card, select the folder in the [DCIM] folder within [Removable Disk] and click [Open].

The still image files appear in the window.



- 5** Select the desired still image files and click [Open].

The still images are added to the right-hand side of the Digital Photo Navigator window.

 - You may select more than one file.
 - You can also add files by dragging and dropping them in the Digital Photo Navigator window.
- 6** Add additional still images as desired by repeating steps 3 – 5.

NOTES:

- When loading images from a memory card, never disconnect the USB cable while the message [ACCESSING FILES] is displayed in the camcorder's LCD monitor.
- Digital Photo Navigator can only load still images. Digital Photo Navigator cannot load video clips and sound effects.



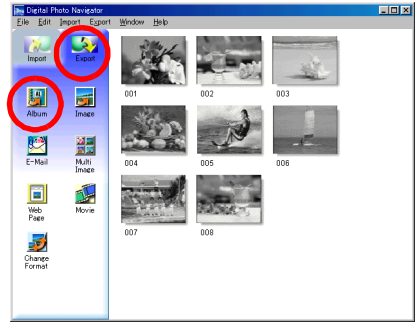
7 Click [Export].

8 Click [Album].

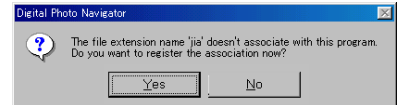
The [Save As] dialog box appears.

9 Specify the location where you want to save the album, input the file name of the album, and then click [Save].

The album is saved.



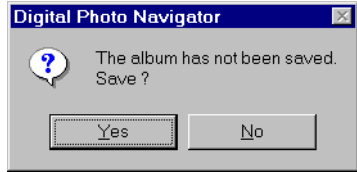
- If you save an album for the first time after the software installation, a message appears and asks if you want to register the association of the file extension name “jia”. Then, click [Yes].
- To exit Digital Photo Navigator, refer to “Exiting Digital Photo Navigator” (pg. 12).



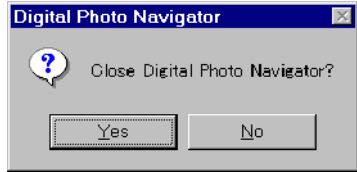
- 1 Click the [File] menu and then click [Exit].
 - If you have already saved an album, a confirmation message appears. Then, go to step 2.



- If you have not saved an album after loading still images, a confirmation message appears.
To save an album, click [Yes]. The [Save as] dialog box appears. Specify the location where you want to save the album, input the file name of the album, and then click [Save]. A confirmation message appears. Then, go to step 2.
To exit Digital Photo Navigator without saving an album, click [No]. A confirmation message appears. Then, go to step 2.



- 2 Click [Yes].
Digital Photo Navigator closes.



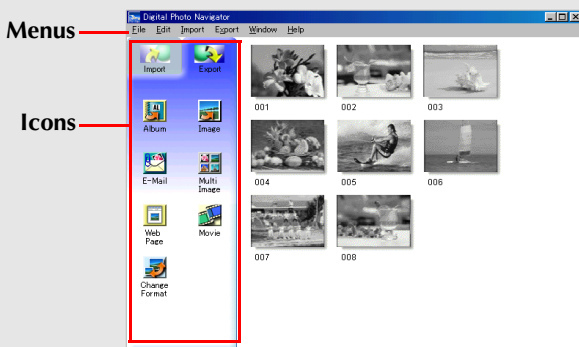
Playing Back and Handling Images (Windows®)

This section explains how to handle still images using Digital Photo Navigator.

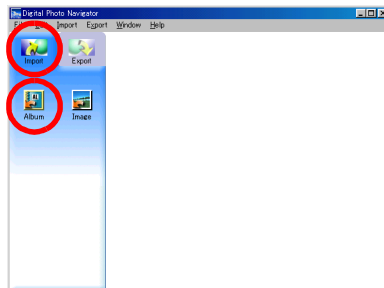
You can send still image files as an e-mail attachment and store an album as a web page. Be sure to read “Loading Still Images (Windows®)” before reading this section.

The icons on the Digital Photo Navigator window have the same functions as the menus. In this section, almost all the procedures are explained using the icons.

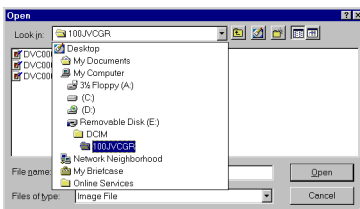
Read this section if you are using a Windows® operating system.



- 1 Start Digital Photo Navigator.
- 2 Click [Import].
- 3 Click [Album].
The [Open] dialog box appears.



- 4 Open the folder where the album was saved.

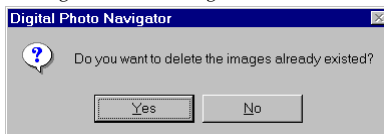


- 5 Click the desired album file, and then click [Open].
The contents of the album are displayed in the right-hand side of the Digital Photo Navigator window.
- 6 Click [Export].



NOTES:

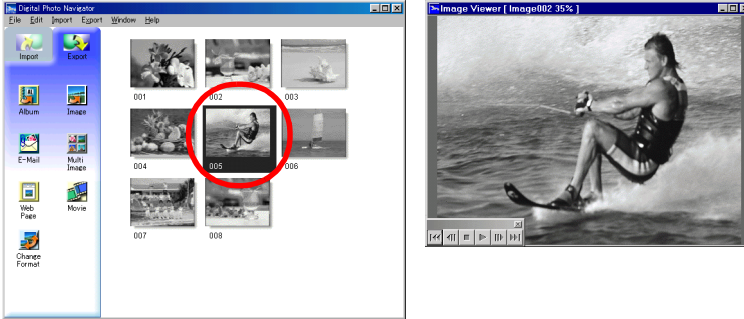
- You can also open the album file by dragging and dropping it in the Digital Photo Navigator window.
- If an album is currently open, a confirmation message appears.
 - If you want to open the newly selected album instead of the one already opened, click [Yes]. If you have not saved the album already opened, a confirmation message appears. If you want to save the album, click [Yes]. If you do not want to save the album, click [No].
 - If you want to add still images from the newly selected album to the album already opened, click [No].






Displaying a selected still image

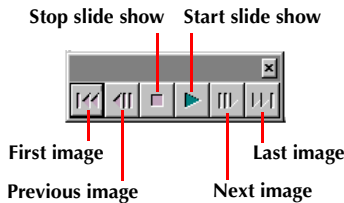
You can select for display any of the still images that are displayed in the right-hand side of the Digital Photo Navigator window.

- 1 Double-click the still image to be displayed.
The [Image Viewer] window appears, and the selected image is displayed.



Displaying a series of images

To display a series of images in “slide show” fashion, click the  button in the [Image Viewer] window. You can also move through the images manually in either direction by clicking the  and  buttons.



To adjust the speed of the slide show, right-click the [Image Viewer] window and then, in the menu that appears, click [Slide show] – [Setting Interval Time]. Set the length of the interval (in seconds), and then click [OK].

NOTE:

The interval for a slide show is a little longer than the setting because of display processing time.

Enlarging and reducing images

The following procedure describes how to change the display size of a still image.

- 1 Drag the corner of the [Image Viewer] window to change the size of the window to the desired display size.
- 2 Right-click the [Image Viewer] window and then, in the menu that appears, click [Zoom] – [Auto].

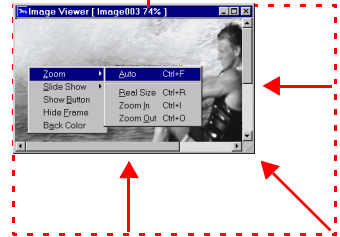
The size of the still image is automatically enlarged or reduced to fit the window, and the display magnification (enlargement/reduction percentage) indicated in the title bar of the window changes accordingly.

Other enlargement/reduction functions

In addition to adjusting the size of the image to the size of the window, the display size of a still image can also be changed by the methods described below. Each of these functions can be selected by right-clicking the [Image Viewer] window.

- [Zoom] – [Real Size]: Displays the image in its original size (display magnification of 100%).
- [Zoom] – [Zoom In]: Displays the image at twice its current display magnification (up to 400%).
- [Zoom] – [Zoom Out]: Displays the image at half its current display magnification (up to 20%).

Display magnification



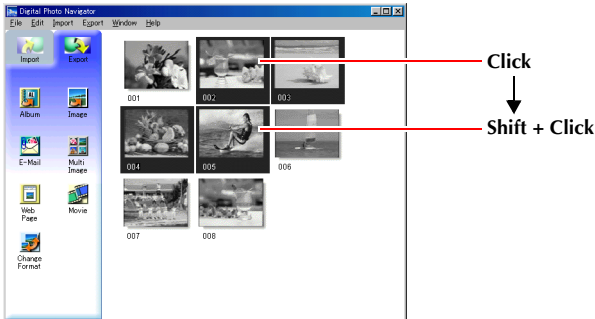
Whenever necessary, you can delete or copy still images that you have added to an album. The procedure described below only affects the still image in the album. It does not affect the original file of the still image that was added to the album.

Selecting multiple still images

To delete or copy multiple still Images at once, select them in advance. You can also select all still images in the album.

Selecting still images continuously

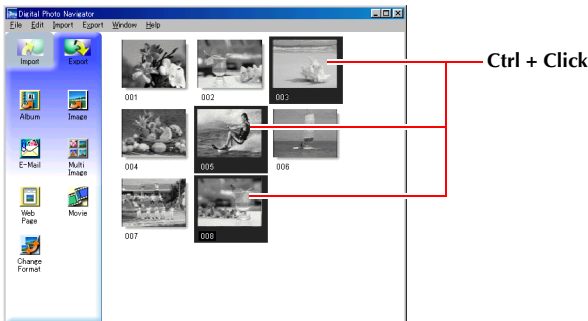
Click still images while holding down the Shift key.



If you click one still image while holding down the Shift key, the images of smaller numbers are selected as well.

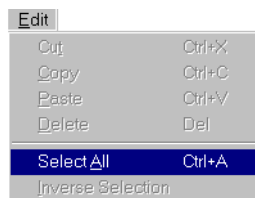
Selecting still images one by one

Click still images while holding down the Ctrl key.



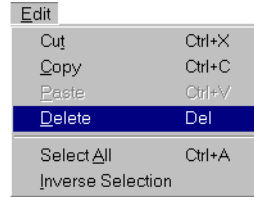
Selecting all of the still images

Click [Select All] in the [Edit] menu.

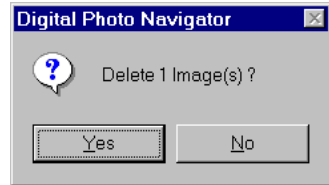


Deleting unnecessary still images

- 1 Click the still image that you want to delete, and then click [Delete] in the [Edit] menu.
A confirmation message appears.

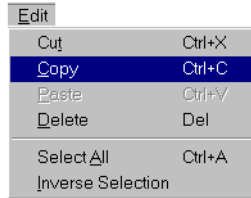


- 2 Click [Yes].
The selected still images are deleted.

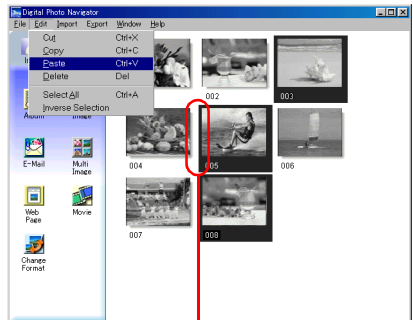


Copying still images

- 1 Click the still image that you want to copy, and then click [Copy] in the [Edit] menu.



- 2 Click the image that is located right after the insertion point.
 - To add the images at the end of the album, click the blank space in the right-hand side of the window.
- 3 Click [Paste] in the [Edit] menu.
The copied still images are inserted right before the selected image.



Insertion point

NOTE:

You can delete, copy or paste an image also by right-clicking it.

Still images in an album can be sent as an e-mail attachment.

Preparation: Before using the [E-Mail] function

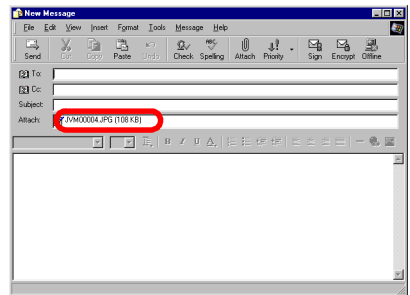
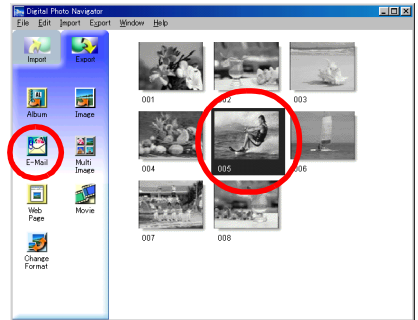
If you use the Internet Explorer, be sure to use the version 5.5 or later.
When installing the Internet Explorer, select a typical set of components.

1 Click the still image that you want to send, and then click [E-Mail].

The new message window in your e-mail program appears, and the still image file is registered as an attachment.

NOTES:

- Depending on an e-mail software, a new message window may not open when the [E-Mail] button is clicked.
- Depending on an e-mail software, settings such as "Set as MAPI client" or "Used by MAPI application" are necessary.
- The maximum number of messages that can be created at once is three.

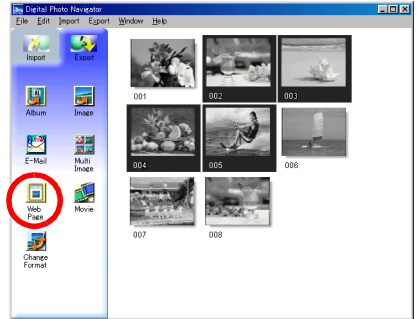


You can save the contents of an album in HTML format. This is useful in the following instances:

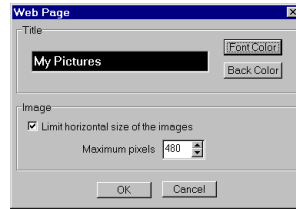
- When creating a web page: You can create a web page that features a collection of photos.
 When distributing an album: You can create an album in a format that can be displayed by a web browser. This is useful if you want to distribute the album on CD-R, etc.

- 1** Select the still images that you want to save in HTML format.
 - To select more than one still image, hold down the Shift key or the Ctrl key while clicking the images.
 - To select all of the still images, click [Select All] in the [Edit] menu.

- 2** Click [Web Page].
The [Web Page] dialog box appears.



- 3** Set the following items when necessary.
 - [Title]: This will be the title of the web page.
 - [Font Color]: This specifies the color of the title text.
 - [Back Color]: This specifies the background color of the web page. (Specify a color other than the font color.)
 - [Limit horizontal size of the images]: This allows you to specify the maximum width of the image when displayed by a web browser. (Set the number of pixels much smaller than the width of the PC's display.)



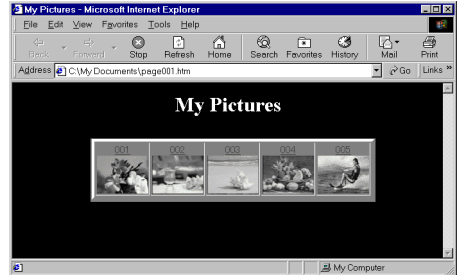
- 4** Click [OK], specify the save location, and then click [Save].

The HTML file is saved, and a folder with the same name is saved at the same time. A confirmation message appears next, asking whether to display the web page.

- 5** Click [Yes].

The web browser opens, and the HTML file that was created is displayed.

- Click on an image on the web page to enlarge it.



What Next?

You can also view an HTML file through the web browser by double-clicking the HTML file. You can upload the HTML file to your home page, or save it on a CD-R or some other media and distribute it. Always handle HTML files and folders as a set. Without its folder, an HTML file cannot be viewed by a web browser.

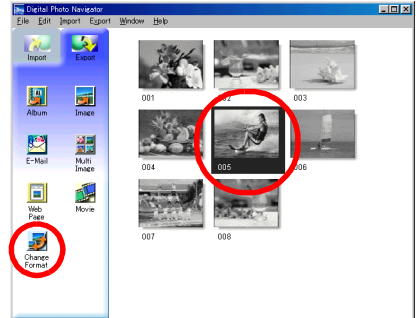
NOTES:

- For more details on how to create a home page, consult your Internet service provider's web site or one of the many reference books available.
- Use third-party home page creation software or similar software to edit HTML files.

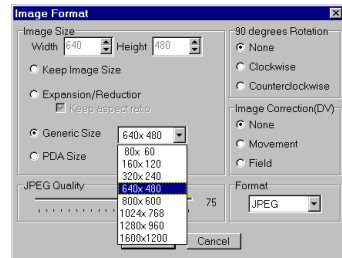
Changing the image size

This procedure describes how to change the size of an image that has been loaded into Digital Photo Navigator. This procedure is used to reduce the size of an image that is being attached to an e-mail or saved in an album.

- 1** Select the still image to be changed.
 - To select more than one still image, hold down the Shift key or the Ctrl key while clicking the images.
 - To select all of the still images, click [Select All] in the [Edit] menu.
- 2** Click [Change Format].
The [Image Format] dialog box appears.



- 3** Select one of the following items:
 - [Expansion/Reduction]: Set any desired image size in the [Width] and [Height] fields. If the [Keep aspect ratio] check box is not selected (off), both [Width] and [Height] fields can be changed.
 - [Generic Size]: Select the size from a list of generic sizes.
 - [PDA Size]: This is an image size (160 x 160) that can be displayed on most PDAs.



- 4** Click [OK].
 - If you select more than one still image in step 1, a confirmation message appears.
 - If you want to apply the same format to all images, click [Yes].
 - If you do not want to apply the same format, click [No]. The first image is saved. Then, select the image size for each image.

The image size is changed to the selected size. If the vertical-to-horizontal ratio was changed, the blank spaces are shown as black.

Changing the picture quality, etc.

In addition to changing the size of an image, it is also possible to rotate images, change or correct the quality of an image, and change the file format of an image. The role of each setting is described in more detail below.

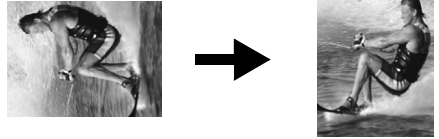
[90 degrees Rotation]

If you hold the camcorder sideways when recording an image, you can create an image that is taller than it is wide. Because this still image will be displayed sideways, use this function to rotate the image 90 degrees to the portrait orientation.

[None]: No correction

[Clockwise]: Rotates the image 90 degrees clockwise.

[Counterclockwise]: Rotates the image 90 degrees counterclockwise.



[Image Correction (DV)]

This setting is not available.

[Format]

You can select the file format of an image.

[JPEG]: This is the format that is typically used on the Internet. This format has a smaller file size.

[BITMAP]: This is the standard Windows® image format (BMP). Many applications can use this format.

[JPEG Quality]

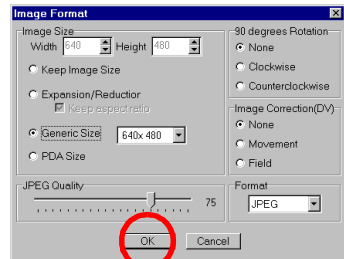
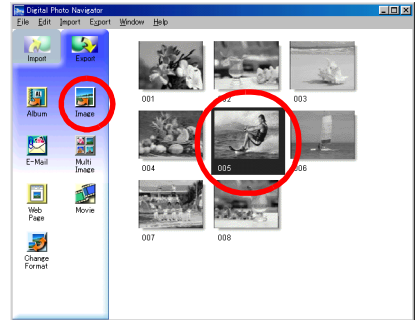
This setting is available when JPEG was selected in the [Format] field. Moving the slider to the left makes the file smaller. Moving the slider to the right results in less deterioration in the image quality. The initial setting is 75.

NOTES:

- When [JPEG] is selected in the [Format] field, the quality of the image deteriorates slightly each time that [OK] is clicked for the [Image Format] dialog box. To restore the original image quality, reload the original still image file.
- To confirm the file size, right-click the still image and then select [Properties].

You can retrieve still images from an album and save them as a file.

- 1** Select the still image to be retrieved.
 - To select more than one still image, hold down the Shift key or the Ctrl key while clicking the images.
 - To select all of the still images, click [Select All] in the [Edit] menu.
- 2** Click [Image].
The [Image Format] dialog box appears.
- 3** Change the image format as desired. (☞ pg. 22, 23)
Then, click [OK].
 - At this point, you can change the image size and picture quality as desired. (☞ pg. 22)
The [Save As] dialog box appears.
- 4** Specify the location where you want to save the file, input the file name, and then click [Save].
The image file is saved.
 - If you select more than one still image in step 1, a confirmation message appears.
 - If you want to save all images with the same image format and their default name, click [Yes]. The [Auto Save Result] dialog box appears. Then, click [OK].
 - If you want to set the image format and input file name for each image, click [No]. The first image is saved. The [Image Format] dialog box appears for the second image. Repeat steps 3 and 4 as many times as necessary.



You can arrange multiple still images together and save them in a single still image file.

1 Holding down the Shift key or the Ctrl key, select the still images that are to be added to the list.

2 Click [Multi Image].

The [Multi Image] dialog box appears.

3 Select the number of partitions.

- Either 4, 9, or 16 partitions may be selected.

4 Click [Back Color], select the color for the overall background, and then click [OK].

5 Change the positions of the still images as desired.

- Deleting an image: Right-click the still image and then select [Delete].
- Adding an image: Drag an image from the right-hand side of the Digital Photo Navigator window to the [Multi Image] dialog box.

6 Click [Save].

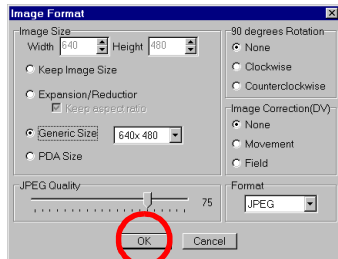
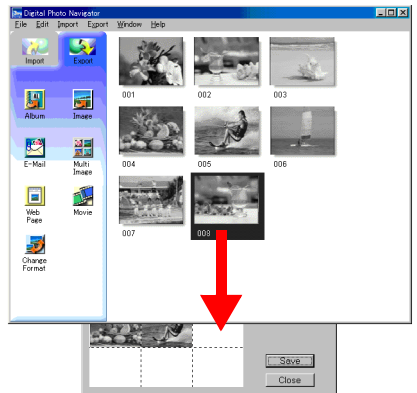
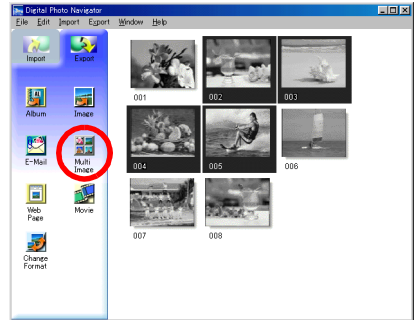
The [Image Format] dialog box appears.

7 Change the image format as desired. (☞ pg. 22, 23)
Then, click [OK].

- At this point, you can change the image size and picture quality as desired. (☞ pg. 22)
The [Save As] dialog box appears.

8 Specify the location where you want to save the file, input the file name, and then click [Save].

The still image list file is saved.



You can create a slide show or an animation in which a series of still images are displayed, and then save those images as a movie file (extension “.avi”).

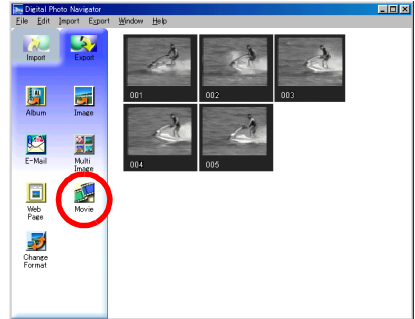
[Slide Show]: Still images are displayed for several seconds each, one at a time.

[Animation]: Several still images are displayed per second. We recommend that you select a series of still images that create the appearance of continuous movement.

1 Holding down the Shift key or the Ctrl key, select several still images.

2 Click [Movie].

The [Movie Settings] dialog box appears.



3 Select either [Slide Show] or [Animation], which ever is desired.

- For a slide show, set the length of the interval (in seconds).
- For an animation, set the number of displayed frames (images) per second.

4 Set the following items when necessary.

- [Image Size]: Select the size of the movie file.
- [Compressor]: Select the type of compressor.
- [Back Color]: This item is used if the aspect ratio of the images is not 4:3.

5 Click [OK].

The [Save As] dialog box appears.

6 Specify the location where you want to save the file, input the file name, and then click [Save].

- The file name can be changed.

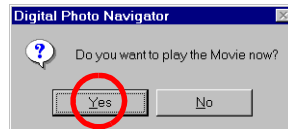
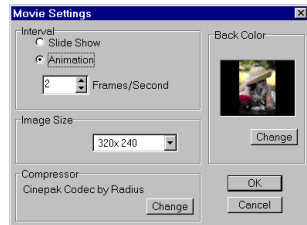
The movie file is saved, and a confirmation message that asks if you want to play the movie now appears.

7 Click [Yes].

The movie file is played back.

NOTES:

- If you change the [Compressor] item, make sure that the playback system supports that type of compressor.
- Depending on the selected type for [Compressor], a movie file cannot be created.
- In some cases, the settings in the [Video Compression] dialog box are invalid.



ImageMixer with VCD (Windows® and Macintosh)

In addition to capturing still images and creating albums, ImageMixer is used for a variety of other functions, including color and brightness adjustment, and capturing video through a USB cable or a DV cable. Read this section whether you are using a Windows® or a Macintosh operating system.



Explanations of mode buttons are displayed here.

Capabilities

The ImageMixer software possesses a variety of functions. Its primary applications are described below.

Editing your own original movies

ImageMixer allows you to capture video from a camcorder, rearrange scenes, add special effects when changing scenes, insert still images, and otherwise freely edit your own movies. ImageMixer also allows you to add audio and background music.

The edited movie is stored in MPEG1 format, which provides a comparatively smaller file size. This makes it more convenient to distribute it to your friends, for example, expanding the range of possibilities for which you can use your camcorder.

Capturing video from tape

Connect the camcorder to the PC with a USB cable. ImageMixer can then convert the video on tape to MPEG1 format and store it in the PC.

NOTE:

This feature is not available when ...

... the camcorder and a Windows® 98 PC are connected with a USB cable

... the camcorder and a Windows® 98/98SE or Macintosh PC are connected with a DV cable

Capturing video in real time

Connect the camcorder to the PC with a USB cable. ImageMixer can then record on the hard disk in the PC, instead of on the tape.

NOTE:

This feature is not available when ...

... the camcorder and a Windows® 98 PC are connected with a USB cable

... the camcorder and a Windows® 98/98SE or Macintosh PC are connected with a DV cable

Loading still images from a memory card

Connect the camcorder to the PC with a USB cable. ImageMixer can then load still images from a memory card.

Capturing audio from a microphone or CD

ImageMixer can record audio from the PC's microphone. Because the recording can be made while playing the video back at the same time, it is easy to add audio that is in sync with previously recorded video.

ImageMixer can also add music from a CD as background music for your movie.

Editing still images

ImageMixer can adjust the brightness and contrast of still images and extract only the necessary portions.

ImageMixer also has a variety of functions for correcting eye color tones that are too red.

In addition, ImageMixer allows you to freely lay out still images, pictures, text, and other elements to create your own postcards, CD-R labels, etc.

Managing files on hard disk

ImageMixer can manage elements that can be used in movie editing (video, still images, audio) as albums. Aside from permitting checking of files in list format or through a slide show, ImageMixer can also perform file operations such as search, move, duplicate, and delete. In addition to making movie editing easier, these functions are also useful for classifying and managing images with a camcorder.

Create a Video CD

ImageMixer can edit your captured and edited video and then create a Video CD.

IMPORTANT:

Differences from Digital Photo Navigator

Unlike Digital Photo Navigator, ImageMixer only registers the location of an image file and its thumbnail image in albums. When images are handled by ImageMixer, the original file is affected by the operation. For example, if an image is deleted from an album, the original file is deleted. If a file is moved, ImageMixer loses track of where the file resides. Therefore, file operations should be conducted carefully.

For more detailed information

This manual only provides an overview of ImageMixer. For more details on how to use its many functions, refer to the online help.

To display online help for Windows®, click the [?] button located in the upper right corner of the ImageMixer screen. Clicking this button launches the web browser and displays the online help.

To display online help for Macintosh, double-click the “manual.html” file in the [ImageMixer with VCD] folder.

PIXELA User Support Center

For more details on how to use ImageMixer, refer to the following User Support Center.

North America (Los Angeles)

Telephone: +1-213-341-0163

Europe (U.K.)

Telephone: +44-1489-564-764

Asia (Philippines)

Telephone: +63-2-438-0090

Capturing video in real time


When a camcorder is connected to the PC with a USB cable, the video from the camcorder can be recorded on the PC's hard drive instead of on tape or in a memory card (real-time capture).


1 Connect the camcorder to the PC with a USB cable.

- Refer to "Connections (Windows®)" (☞ pg. 9) or "Connections (Macintosh)" (☞ pg. 13) in the Software Installation and USB Connection Guide.

2 Set the camcorder to the memory card recording mode.

The camcorder is now on.

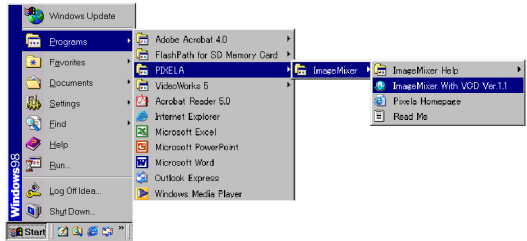
" " appears on the camcorder's LCD monitor.

- If " " does not appear, install [USB Video Streaming driver]. Refer to "Software Installation (Windows®)" (☞ pg. 5) and "Software Installation (Macintosh)" (☞ pg. 14) in the Software Installation and USB Connection Guide.

NOTE:

The procedure is different when reading or writing a memory card.

3 Select [Start] – [Programs] – [PIXELA] – [ImageMixer] – [ImageMixer With VCD Ver.1.1].



- For Macintosh, double-click the [ImageMixer] icon on the PC. ImageMixer starts up.



ImageMixer

4 Click the Input button.

The input mode screen appears.

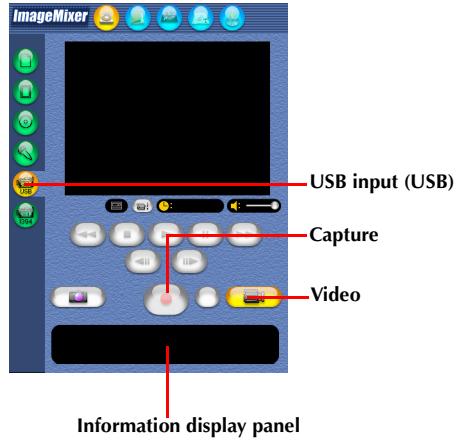
Input



- 5** Click the USB input (USB) button.
The USB input mode screen appears.
- 6** Click the Video button.
The amount of available storage space is displayed in the information display panel.
- 7** Click the Capture button.
The capture operation begins.
- 8** Click the Capture button again.
Once conversion ends, the video file (MPEG1) is registered in the album.

NOTE:

If the MPEG1 files cannot be converted to MPEG4 files with ImageMixer, install Windows Media™ Player (version 7 or later). Windows Media™ Player can be loaded from Microsoft's web site: <http://www.microsoft.com/>

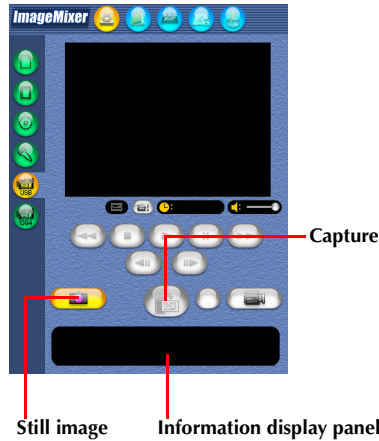


Capturing still images

- 1** Click the Still image button.
- 2** Click the Capture button.
The video image at the moment that the button was clicked is captured, and the resulting still image file (JPEG) is registered in the album.

NOTES:

- *It is not possible to capture videos or still images if the USB Mass Storage Class driver is not installed properly. In this case, refer to "Updating [Device Manager] (Windows®)" (pg. 8) in the Software Installation and USB Connection Guide.*
- *On the information display panel or the file information dialog, some information such as file-created date may be incorrect.*



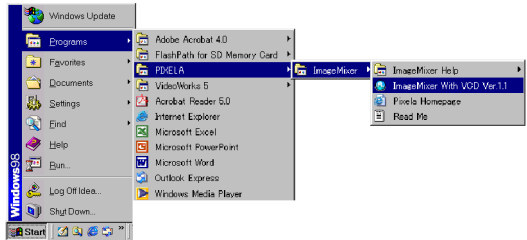
Disconnecting the USB cable

- 1** Disconnect the USB cable.
- 2** Set the Power Switch on the camcorder to "OFF".
The camcorder turns off.

Capturing video from tape

When a camcorder is connected to the PC with a USB cable, video can be copied from the camcorder tape to the PC.

- 1 Set the camcorder to the tape playback mode.
The camcorder is now on.
- 2 Select [Start] – [Programs] – [PIXELA] – [ImageMixer] – [ImageMixer With VCD Ver.1.1].
ImageMixer starts up.



- For Macintosh, double-click the [ImageMixer] icon on the PC.
ImageMixer starts up.

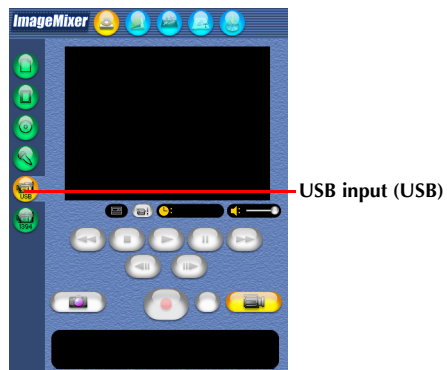


- 3 Click the Input button.
The input mode screen appears.

Input



- 4 Click the USB input (USB) button.
The USB input mode screen appears. After a while, a blue screen appears.

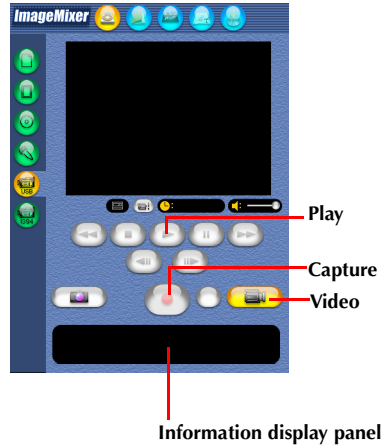


Copying video

- 1** Click the Video button.
The amount of available storage space is displayed in the information display panel.
- 2** Click the Play button.
The camcorder begins playing back the video, and the same image appears on the PC screen.
- 3** Click the Capture button.
The capture operation begins.
- 4** Click the Capture button again.
Once conversion ends, the video file (MPEG1) is registered in the album.

NOTE:

If the MPEG1 files cannot be converted to MPEG4 files with ImageMixer, install Windows Media™ Player (version 7 or later). Windows Media™ Player can be loaded from Microsoft's web site:
<http://www.microsoft.com/>



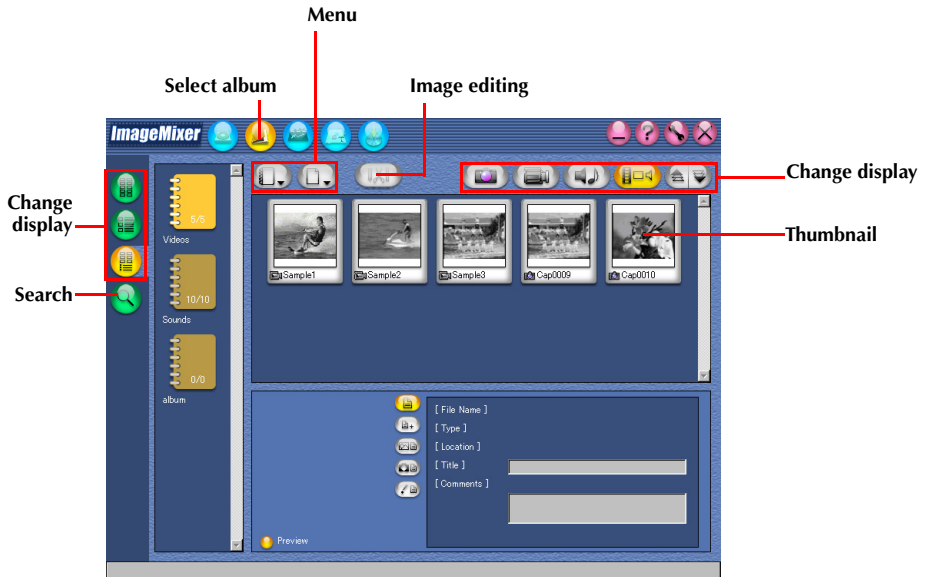
Disconnecting the USB cable

- 1** Disconnect the USB cable.
- 2** Set the Power Switch on the camcorder to "OFF".
The camcorder turns off.

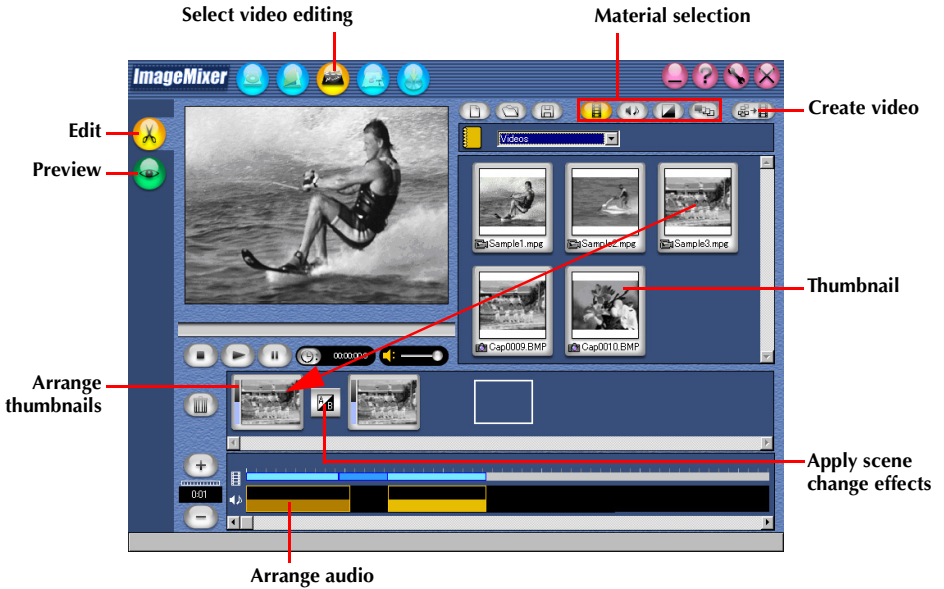
NOTES:

- If you are using a Windows® PC, you can use a DV cable instead of a USB cable to capture video. In this case, click the Digital video camera input (1394) button in step 4 on page 32. For more details, refer to the online help. (☞ pg. 29)
- To copy a video as a still image, click the Still image button in step 1 of "Copying video" and perform steps 2 – 4.
- It is not possible to capture video keeping DV format. Use other DV capture application software available.
- If you capture video from a tape via an optional DV cable, noise may appear depending on the type or the performance of the hardware. In this case, use the USB cable.

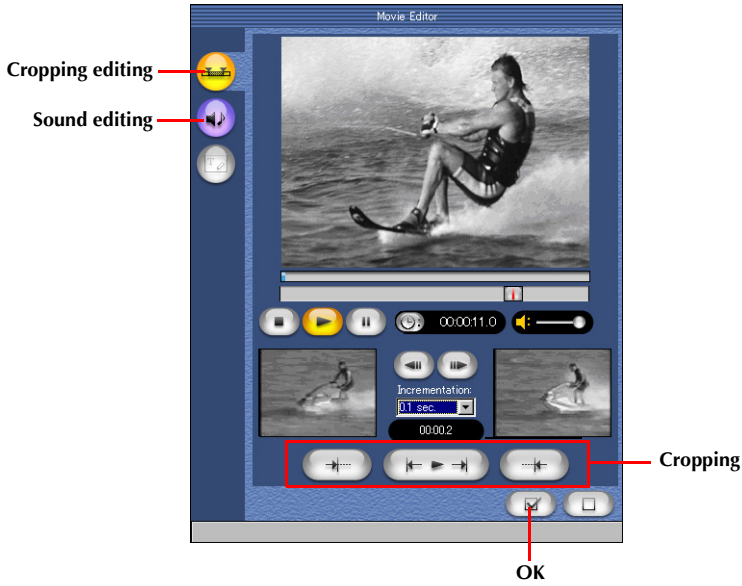
ImageMixer can group and search for files (still images, video, and audio) registered in an album, according to their purpose. To playback a file, double-click on its thumbnail.



ImageMixer can edit video files registered in an album. ImageMixer can also insert still images and add audio.



Double-clicking on one of the (video or still image) thumbnails arranged at the bottom of the screen causes the editing window to appear. The beginning/ending of videos can be deleted and the volume can be adjusted. The display time for still images can be adjusted.

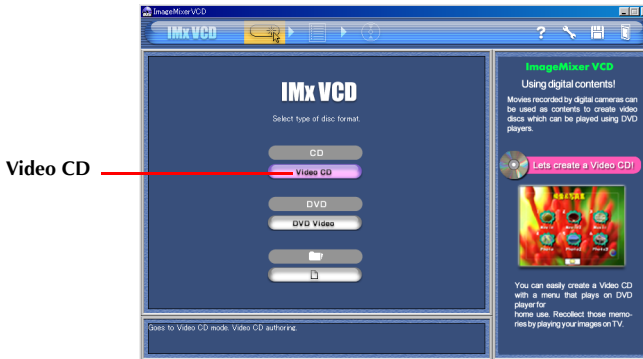


To check the results of editing, click the Preview button. Once editing is complete, click the Create video button to save the final product.

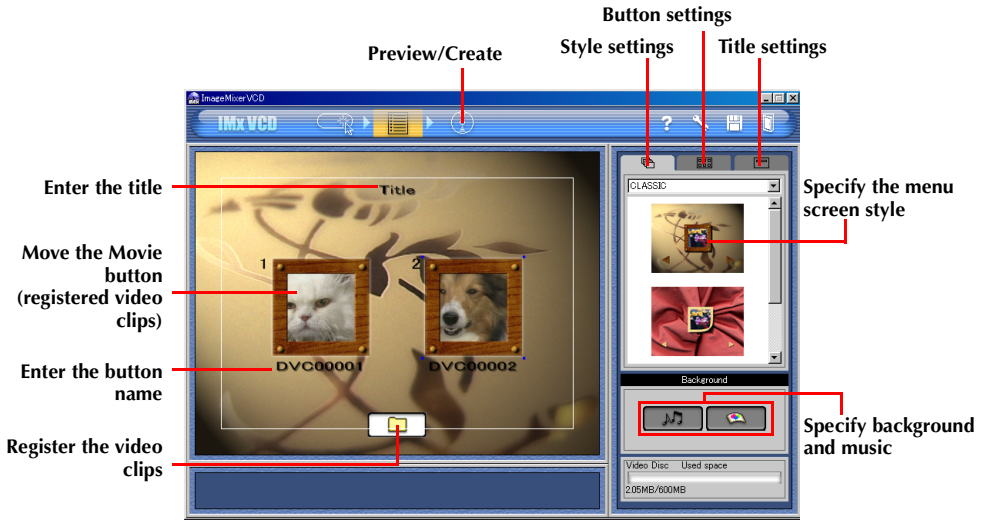
If your computer is equipped with a CD-R drive, you can use ImageMixer to create a Video CD.



On the first screen of ImageMixer or ImageMixer screen, click the Video CD button. [IMx VCD] screen appears.



Click [Video CD]. The Menu/Layout screen appears.



After registering the video clips and entering the title and button name, click the Preview/Create button. The Preview/Create screen appears.



Insert a blank CD-R disc in the CD-R drive and click the Create button to create a Video CD.

NOTES:

- If you are using a Windows® PC, refer to the following web site for a drive that is compatible with Windows®:
<http://www.imagemixer.com>
- If you are using a Macintosh PC, the CD authoring application Toast™ by Roxio, Inc. and a compatible CD-R drive is also necessary to create a Video CD. Follow the steps above to create a Video CD image file, and then open it with Toast™ and create the Video CD.
- Some CD-R drives are incompatible. For details, please refer to the ImageMixer online help. (pg. 29)
- It is only possible to play back the created Video CD with the player which conform with Video CD standard Version 2.0.
- The image quality may be deteriorated when you create Video CD with video captured from the camcorder via a USB cable.

Appendix

This appendix explains how to use a camcorder to hold a video conference over the Internet and how to load images into the PC that does not have a USB connector. This appendix also contains troubleshooting and index.


Using Windows® NetMeeting® (Windows® Only)


You can use Windows® NetMeeting® to conduct video conferences over the Internet, using a camcorder.

Preparation

- 1** Confirm that Windows® NetMeeting® 3.0 or later and MSN Messenger Service is installed.
 - You can download the latest version of Windows® NetMeeting® or MSN Messenger Service from Microsoft's web site:
<http://www.microsoft.com/>
 - 2** Install [USB Video Streaming driver].
 - Refer to "Software Installation (Windows®)" (☞ pg. 5) in the Software Installation and USB Connection Guide.
 - If the installation of [USB Video Streaming driver] has already been completed, go to step 3.
 - 3** Connect the camcorder to the PC with a USB cable.
 - Refer to "Connections (Windows®)" (☞ pg. 9) in the Software Installation and USB Connection Guide.
 - 4** Set the camcorder to the memory card recording mode.

The camcorder is now on.

"" appears on the camcorder's LCD monitor.


 - If "" does not appear, install [USB Video Streaming driver]. Refer to "Software Installation (Windows®)" (☞ pg. 5) in the Software Installation and USB Connection Guide.
- NOTE:**
The procedure is different when reading or writing a memory card.
- 5** Select [Start] – [Settings] – [Control Panel] and double click the [Multimedia] icon. Select the [Audio] tab and click [JVC PIX-MCV Audio Capture] in the [Preferred device] box.
 - 6** Start NetMeeting®, and set up the program as instructed on the screen.
 - An environment that provides for connection to the Internet and an e-mail address are also required.
 - Select [JVC PIX-MCV Audio Capture] as a recording device in the [Audio adjustment] wizard.
 - 7** In the [Conference] menu, click [Directory].


The [Find Other Party] dialog box appears.
 - 8** Register with HotMail as instructed on the screen.
 - 9** Set up MSN Messenger as instructed on the screen.
 - If setup was completed previously, the MSN Messenger Service logon window appears.
 - 10** Exit NetMeeting® and MSN Messenger Service.

Videoconferencing

- 1** Connect to the internet.
 - 2** Connect the camcorder to the PC with a USB cable.
 - Refer to “Connections (Windows®)” (☞ pg. 9) in the Software Installation and USB Connection Guide.
 - 3** Set the camcorder to the memory card recording mode.

The camcorder is now on.

“” appears on the camcorder’s LCD monitor.

 - If “” does not appear, install [USB Video Streaming driver]. Refer to “Software Installation (Windows®)” (☞ pg. 5) in the Software Installation and USB Connection Guide.
- NOTE:**
The procedure is different when reading or writing a memory card.
- 4** Start NetMeeting®, and click [Directory] in the [Conference] menu.

The MSN Messenger Service logon window appears.
 - 5** Log on to the MSN Messenger Service as instructed on the screen.
 - 6** In the list of [Current Friends Online], specify the party with whom you will videoconference.

You can now begin the videoconference if your friends respond. The same environment is necessary for your friends.

For details, refer to the help for the MSN Messenger Service and NetMeeting®. Details on how to use NetMeeting® are expected to be available on the JVC web site.

JVC web site:

<http://www.jvc-victor.co.jp/english/index-e.html>

ATTENTION

Do not turn the Power switch during video conference.

NOTES:

- If you are using Windows® 98, you cannot use the microphone in the camcorder. Either connect a third-party microphone to the PC, or use the PC’s own microphone.
- If you are using a dial-up router or a broadband router, refer to the router’s instruction manual.
- If you are using a firewall or a router, it is not possible to connect to the internet properly.
- Consult your Internet service provider for details before using NetMeeting®.
- Depending on the condition of the line, the quality of images or sound during videoconferences may differ.
- You can also send the video of a tape which the camcorder is playing back. In this case, set the camcorder to the playback mode in step 3.


Using Windows® Messenger (Windows® XP Only)


If you are using a Windows® XP, you can use Windows® Messenger to conduct video conferences over the Internet, using a camcorder.

Preparation

- 1** Confirm that Windows® Messenger® 4.6 or later is installed.
 - You can download the latest version of Windows® Messenger from Microsoft's web site:
<http://www.microsoft.com/>
 - 2** Connect to the Internet and set up Windows® Messenger.
 - Start Windows® Messenger and register your e-mail address and other information. For details, refer to the Windows® Messenger help.
 - 3** Install [USB Video Streaming driver].
 - Refer to "Software Installation (Windows®)" (☞ pg. 5) in the Software Installation and USB Connection Guide.
 - If the installation of [USB Video Streaming driver] has already been completed, go to step 4.
 - 4** Connect the camcorder to the PC with a USB cable.
 - Refer to "Connections (Windows®)" (☞ pg. 9) in the Software Installation and USB Connection Guide.
 - 5** Set the camcorder to the memory card recording mode.

The camcorder is now on.

" " appears on the camcorder's LCD monitor.

 - If " " does not appear, install [USB Video Streaming driver]. Refer to "Software Installation (Windows®)" (☞ pg. 5) in the Software Installation and USB Connection Guide.
- NOTE:**
The procedure is different when reading or writing a memory card.
- 6** In the main screen of Windows® Messenger, click [Tools] and then select [Audio and Video Tuning Wizard...].
 - 7** Select [JVC PIX-MCV Video Capture] and then click [Next].
 - Make sure that the image from the camcorder is displayed.
 - 8** Click [Next]. In the microphone setting, specify [JVC PIX-MCV Audio Capture]. In the speaker setting, specify the sound board that you are using.
 - If you specify [JVC PIX-MCV Audio Capture] for the microphone setting, you cannot select [Use headphones].
 - 9** Click [Next]. Check the speaker or headphone volume.
 - Click [Test] and check for sound from your speakers or headphones.
 - 10** Click [Next]. Check the microphone volume.
 - The microphone volume is automatically adjusted. Speak into the camcorder microphone and check the microphone volume level so that the green bar extends into the yellow range.
 - 11** Click [Next] and exit the Wizard.

Videoconferencing

- 1** Connect to the internet.
- 2** Connect the camcorder to the PC with a USB cable.
 - Refer to “Connections (Windows®)” (☞ pg. 9) in the Software Installation and USB Connection Guide.
- 3** Set the camcorder to the memory card recording mode.

The camcorder is now on.

“” appears on the camcorder’s LCD monitor.

- If “” does not appear, install [USB Video Streaming driver]. Refer to “Software Installation (Windows®)” (☞ pg. 5) in the Software Installation and USB Connection Guide.

NOTE:

The procedure is different when reading or writing a memory card.

- 4** Log on to the Windows® Messenger.
 - Register your friend’s e-mail address beforehand. For details, refer to the Windows® Messenger help.
- 5** In the Windows® Messenger screen, make sure that someone is online besides yourself.
 - Another friend must be online for you to call.
- 6** Right-click the name of your friend.
- 7** Click [Start Video Chat].

The videoconference screen appears while you wait for a response from your friend. You can now begin the videoconference if your friend clicks [Agree].

If the Image does not appear...

- Upgrade to Windows® Messenger 4.6 or later. You can download the latest version of Windows® Messenger from Microsoft’s web site.
<http://www.microsoft.com/>
- Update your version of Windows® XP. Click the [Start], and select [Windows Update] in [All Programs]. For details, refer to the Windows® XP help or the Microsoft website.
<http://www.microsoft.com/>

For details, refer to the help for the Windows® Messenger. Details on how to uses Windows® Messenger® are expected to be available on the JVC web site.

JVC web site:

<http://www.jvc-victor.co.jp/english/index-e.html>

NOTES:

- *When you use Windows® Messenger, your friend must use the same application. If your friend uses Windows® NetMeeting®, please use Windows® NetMeeting® version 3.0 or later. (☞ pg. 40)*
- *If you are using a dial-up router or a broadband router, refer to the router’s instruction manual.*
- *If you are using a firewall or a router, it is not possible to connect to the internet properly.*
- *Consult your Internet service provider for details before using Windows® Messenger.*
- *Depending on the condition of the line, the quality of images or sound during videoconferences may differ.*
- *You can also send the video of a tape which the camcorder is playing back. In this case, set the camcorder to the playback mode in step 3.*

You can read and write files on a camcorder memory card by using an adapter (sold separately).

- Floppy disk adapter (CU-VFSD50)** : For PCs that do not have a USB connector, or which are running Windows® 95/NT.
- PC card adapter (CU-VPSD60)** : For PCs with a PC card slot
- USB reader/writer (CU-VUSD70)** : For applications that use numerous memory cards

The following description assumes that a floppy disk adapter is being used. For details on how to use each specific type of adapter, refer to the instructions provided with that adapter.

- 1** Remove the memory card from the camcorder.
- 2** Insert the memory card in the floppy disk adapter.
- 3** Insert the floppy disk adapter into the floppy disk drive of the PC.
- 4** Copy the necessary files from the floppy disk to the hard disk.

The provided CD-ROM contains sound effects files for use with camcorders. In order to use these files, copy them to a memory card by the procedure described below. However, if your camcorder is not equipped with Digital Sound Effect function, these files can not be used.

- 1** Open a memory card through the PC.
 - Connect the camcorder to the PC with a USB cable referring to the Software Installation and USB Connection Guide. Or use an adapter (☞ pg. 44).
- 2** Load the CD-ROM into the PC.

After the moment, the [Important Notice] screen appears.

 - If the [Important Notice] screen does not appear, go to step **4**.
- 3** Click [NEXT], and then click [EXIT].
- 4** Right-click the CD-ROM icon in [My Computer], and then in the menu that appears, click [OPEN].
- 5** Open the [DCSD] folder in the CD-ROM.
- 6** Select the file to be used with the camcorder.
 - You can play the sound effect by double-clicking the file icon.
- 7** Copy the selected file from the CD-ROM to the memory card.
 - Copy to the [100]VCGR] folder in the [DCSD] folder.

Windows®

SYMPTOM	CORRECTIVE ACTION	REFER TO:
Although the USB cable is connected, PC operating system does not recognize the memory card in the camcorder.	<ul style="list-style-type: none"> • Make sure that the AC Adapter is connected to the camcorder and that the power is on. • Make sure that the USB cable is connected securely. • Either use a USB hub that has its own power supply, or connect the USB cable directly to the PC's USB connector. • Windows® might not be recognizing the USB connector. Make sure that the Universal Serial Bus controller is enabled on the [System Properties] sheet in the [Control Panel]. 	<p style="text-align: center;">Software Installation and USB Connection Guide (☞ pg. 9)</p>
Cannot copy or save files.	<ul style="list-style-type: none"> • Make sure that there is enough free space available in the drive where you are trying to copy or save a file. • Make sure that the drive where you are trying to copy or save a file is not write-protected. • Make sure that a file with the same name does not already exist where you are trying to copy or save a file. • Either use a USB hub that has its own power supply, or connect the USB cable directly to the PC's USB connector. 	<p style="text-align: center;">—</p>

Windows® (cont.)

SYMPTOM	CORRECTIVE ACTION	REFER TO:
Cannot load still images into Digital Photo Navigator.	<ul style="list-style-type: none"> • Sometimes the format of the still image data prevents it from being loaded into Digital Photo Navigator. Use other graphics drawing or processing software to convert the file to either bitmap format or JPEG format. • Make sure that there is enough free space available in the drive in which Digital Photo Navigator is installed. 	—
Still images have a mosaic appearance.	<ul style="list-style-type: none"> • When a small image is loaded and enlarged, it will take on a mosaic appearance. • If an image is saved with a lower JPEG quality or if the format of the image is changed, it will take on a mosaic appearance. 	pg. 16 pg. 23
The colors displayed on the PC are odd.	<ul style="list-style-type: none"> • Images will not be displayed correctly if the display is set for 256-color (or fewer) display. 	—
No audio or video during ImageMixer operations	<ul style="list-style-type: none"> • Verify and change Windows® and ImageMixer settings. If this does not work, update your hardware drivers for Windows® XP. You can download the latest version of the drivers from your PC's manufacturer's website. 	—
[Found New Hardware Wizard] screen appears (Windows® XP)	<ul style="list-style-type: none"> • Disconnect the cable, then connect the cable used when installing the driver. 	—
The created date of the file is not displayed correctly on the information display panel.	<ul style="list-style-type: none"> • The created date is not displayed if the date is not set on the camcorder. 	—

NOTE:

When using a laptop PC, operation may be interrupted by a warning when the battery is nearly exhausted.

- If there is software which monitors the status of the battery running in the [StartUp] folder...
Close the application, or delete/move its icon from the [StartUp] folder and reboot your PC.
- If you are using your PC's power management function...
Right-click the [My Computer] icon, then select [Properties]–[System Properties]–[Device Manager]–[System Devices]–[Advanced Power Management Support]. Deactivate the power management function.

Macintosh

SYMPTOM	CORRECTIVE ACTION	REFER TO:
Although the USB cable is connected, PC operating system does not recognize the memory card in the camcorder.	<ul style="list-style-type: none"> • Make sure that the AC Adapter is connected to the camcorder and that the power is on. • Make sure that the USB cable is connected securely. • Either use a USB hub that has its own power supply, or connect the USB cable directly to the PC's USB connector. 	Software Installation and USB Connection Guide (pg. 13)
Cannot copy or save files.	<ul style="list-style-type: none"> • Make sure that there is enough free space available in the drive where you are trying to copy or save a file. • Make sure that the drive where you are trying to copy or save a file is not write-protected. • Make sure that a file with the same name does not already exist where you are trying to copy or save a file. • Either use a USB hub that has its own power supply, or connect the USB cable directly to the PC's USB connector. 	—
The created date of the file is not displayed correctly on the information display panel.	<ul style="list-style-type: none"> • The created date is not displayed if the date is not set on the camcorder. 	—

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